ABSTRACT

A fuel cell power plant comprises a fuel cell (37) which generates power by an electrochemical reaction between hydrogen supplied to an anode (32A) and oxygen supplied to a cathode (32B) via an electrolyte membrane (32). After the fuel cell (37) has stopped power generation, a cooling device (40, 41) condenses water vapor which has accumulated around the anode (32A). The condensed water prevents hydrogen remaining at the anode (32A) after the fuel cell (37) stops generating power, from burning. The cooling device (40, 41) performs cooling until the fuel cell (37) falls to a predetermined temperature, and then stops operating.